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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/582,864	07/06/2000	KAZUHIKO TAKAHATA	2000-0956A	4446

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WENDEROTH LIND PONACK
2033 K STREET NW
SUITE 800
WASHINGTON, DC 20006

EXAMINER	
AKKAPEDDI, PRASAD R	
ART UNIT	PAPER NUMBER
2871	

DATE MAILED: 08/07/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/582,864	TAKAHATA ET AL.	
	Examiner	Art Unit	
	Prasad R Akkapeddi	2871	

-- The MAILING DATE of this communication appears on the cover she t with the corresp ndence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *16 July 2000* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *5* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Specification

1. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

2. The abstract of the disclosure is objected to because 'it is more than 150 words'. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 1 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention: " on page 79, claim1, lines 23-25: the linearly polarized light that is to be outputted from a device surface out of a linear polarization emitted from the liquid crystal display is about 45 degrees and on page 80, claim1, lines 5-7: the linearly polarized light that is to be outputted from the device surface out of linearly polarized light emitted from the liquid crystal display is 90 degrees" Also, the "movable electrode" in claim 1, is not defined. The nature of "Movability" is not clearly understood because the specific method as to cause the movement is not well defined. Moving can be done in one of several ways i.e., the layer having the electrode can be moved up or down in relationship to the other layers, before the assembly of the device or the specific

location of the electrode in the film can be moved, but only before the formation and assembly of the device. But, once the electrode is formed in the film and the device is assembled, the examiner failed to see how the electrode could be moved. These statements are not clear and are indefinite.

5. Claim 14 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention: On page 82, lines 20-25, the limitation " all of the stationary electrode portion-directly-formed member and the liquid ..... transparent repeel sheet" is not clear.

6. Claim 14 recites the limitation "transparent adhesive layer and transparent repeel sheet" in claim 1. There is insufficient antecedent basis for this limitation in the claim.

7. Claims 19-26 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention: The terms " movable-side sheet" and "movable electrode" is not definite for the same reasons cited above for claim1.

Claim Rejections - 35 USC § 103

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

9. Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over of Minoura et al (Minoura) (U.S.Patent No. 6,108,064) in view of Fuzimori et al (Fuzimori) (U.S.Patent No. 5,852,487).

As to claim 1: Fuzimori in Fig. (3) discloses a liquid crystal display device having a touch panel (300b) having an upper polarizer (3a), an upper optical phase difference film (3c), a lower optical phase difference film (2) with a spacer layer (32), the upper optical phase difference film having an electrode (5b) and the lower optical phase difference film having a stationary electrode (5b) on the upper surface and a lower polarizer (1) which is disposed on a lower surface of the liquid crystal display. Although Fuzimori discloses two polarizers and optical phase difference films and the orientation of these polarizers and the films are necessary for the operation of the device, Fuzimori does not explicitly disclose the specific orientation of these films. Minoura, on the other hand, in disclosing a similar liquid crystal display device of the touch panel type having polarizers and optical phase difference films, discloses the various orientations of the polarizer, liquid crystal layer and the optical phase difference films with respect to each other. The angles disclosed by Minoura (Col 2, lines 47-51, Figs. 2,4,10) covers all the limitations claimed by the applicant. Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to adapt the various orientations of the polarizer and the optical phase difference films disclosed by Minoura to the liquid crystal display device disclosed by Fuzimori, that will result in a light weight device having a high contrast ratio with excellent viewing angle characteristics.

9. Claims 5-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shinohara (U.S.Patent No. 5,833,878) in view of Fuzimori. Although Fuzimori discloses the use of phase difference plates as they apply to a liquid crystal display device, Fuzimori does not explicitly disclose the formation of such a film or films. Shinohara, on the other hand, in disclosing a similar liquid crystal display device, discloses (Col. 11 line 67 and Col 12, lines 1-6), thermoplastic resin film for a phase retardation film with a temperature for stretching of 170 degrees, which is within the claimed limitations by the applicant. The thickness is also specified as to 100 microns. Shinohara also discloses the formation of transparent electrodes on the films that are bonded and or laminated to the liquid crystal (Col 17, lines 25-67).

Shinohara also discloses a moisture resistance film as a protective film laminated either one or both sides of the polarizers (Col. 9, lines 15-26). This film will also serve as a hard coat layer with moisture resisting properties.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to adapt the various films disclosed by Shinohara as the optical phase difference films, low-reflectance layer, moisture resistant (anti-fouling) layer or a hard coat layer for the liquid crystal display device of Fuzimori to improve the heat resistance, moisture resistance, dimensional stability and mechanical strength of these devices and to fabricate thinner devices with excellent image sharpness.

10. As to claims 2-4: As to the product-by-process limitation "is formed" of claims 2-4, it has been recognized that "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The

patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

11. As to claims 14-18: As to the product-by-process limitation "directly formed and adhesively bonded" of claim 14, and "is laminated" of claims 15-18, it has been recognized that "[E]ven though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process." In re Thorpe, 777 F.2d 695, 698, 227 USPQ 964, 966 (Fed. Cir. 1985).

Allowable Subject Matter

10. Claims 19-26 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any dependant claims.

11. Claims 19-26 would be allowable over the prior art of record because none of the prior art discloses or suggests a method for fabricating a touch-input type liquid crystal display device with the following steps in the specific sequence: (a) a heat treatment for removal of residual solvents for the upper optical phase difference film (b) forming a transparent electrically conductive film for the electrode portion (c) forming leads (d) curing the binder ink (e) removal of the solvent ink (f) repeat above steps for the lower

optical phase difference film and the (g) process of laminating the various films and the liquid crystal display.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Prasad R Akkapeddi whose telephone number is 703-305-4767. The examiner can normally be reached on 7:00AM to 5:30PM M-Th.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William L Sikes can be reached on 703-308-4842. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9318 for regular communications and 703-872-9319 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0530.

PRA

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August 5, 2002

William L. Sikes
Supervisory Patent Examiner
Technology Center 2800